



Serial No. 09/987,703

Docket No. HI-0053

Amendment dated November 21, 2006

Reply to Office Action of August 22, 2006

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) A method for multicasting/broadcasting IP data in a mobile communication system, comprising:
  - a packet data serving node (PDSN) receiving multicast packet data;
  - transforming the multicast packet data to a PPP frame format having an identification header, wherein the identification header includes information for distinguishing at least a multicast message and a broadcast message;
  - transmitting multicast message from the PDSN to base station controller/packet control function (BSC/PCF);
  - the BSC/PCF transmitting multicasting/broadcasting message to all or some of base stations under control of the BSC/PCF according to header information of the multicast message; and
  - transmitting the multicasting/broadcasting message to mobile station through broadcasting ~~channel~~channel.

wherein the multicast packet data comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information including body data of the PPP frame format and message body.

2. (Currently Amended) A method of claim 1 further comprising ~~the steps of~~:  
transforming data in the received multicast message to multicast frame data; and  
adding IP packet header to the multicast frame data.
3. (Previously Presented) A method of claim 1 wherein the PDSN and a host add multicasting/broadcasting identification header for multicasting/broadcasting to a terminal receiving services under IMT-2000, PCS, and cellular systems.
4. (Previously Presented) A method of claim 1 wherein the mobile station receives the multicast PPP datagram and passes the data to the higher PPP link or IP layer.
5. (Canceled)

6. (Original) A method of claim 1 wherein PPP link frame data transmitted from the PDSN to the mobile station has a protocol identifier for identifying multicast frame data at a higher PPP layer in the mobile station.

7. (Currently Amended) A mobile communication system for multicasting/broadcasting IP data, comprising:

at least one packet data serving node (PDSN) for altering a received multicast packet data into PPP frame format and transmitting the PPP frame format with header information indicating multicast as a multicast message through TCP/UDP port, wherein the header information includes information for distinguishing at least a multicast message and a broadcast message;

at least one base station controller/packet control function (BSC/PCF) for transmitting multicasting/broadcasting message to all or some of base station under control according to header information of the multicast message received from the PDSN;

at least one base station for transmitting the multicasting/broadcasting message received from the BSC/PCF to the mobile station through broadcasting ~~channel~~channel,

wherein the multicast packet data comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information including body data of the PPP frame format and message body.

8. (Previously Presented) A mobile terminal for multicasting/broadcasting IP data in a mobile communication system, the mobile terminal receives multicast/broadcast, having multicasting/broadcasting identification header, transmitted from higher packet data serving node (PDSN), base station controller/packet control function (BSC/PCF), and base station, wherein the multicast/broadcast is a multicast packet data that comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information including body data of the PPP frame format and message body, wherein the header information includes information for distinguishing at least a multicast message and a broadcast message.

9. (Previously Presented) The mobile terminal of claim 8, wherein the PDSN transmits the multicast packet data to the BSC/PCF.

10. (Previously Presented) The mobile terminal of claim 8, wherein the PDSN and a host add multicasting/broadcasting identification header for multicasting/broadcasting to a terminal receiving services under IMT-2000, PCS, and cellular systems.

11. (Previously Presented) The mobile terminal of claim 8, wherein data in the received multicast/broadcast is transformed to multicast frame data, and adds IP packet header to the multicast frame data.

12. (Previously Presented) The mobile communication system of claim 7, wherein data in the received multicast message is transformed to multicast frame data, and an IP packet header is added to the multicast frame data.

13. (Previously Presented) The mobile communication system of claim 7, wherein the multicast packet data comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group, and length information of a message body.

14. (Previously Presented) A method for multicasting/broadcasting IP data in a mobile communication system, comprising:

a packet data serving node (PDSN) receiving multicast packet data;

transforming the multicast packet data to a PPP frame format having an identification header, wherein the identification header includes information for distinguishing at least a multicast message and a broadcast message;

transmitting multicast message to base station controller/packet control function (BSC/PCF);

the BSC/PCF transmitting multicasting/broadcasting message to all or some of base stations under control of the BSC/PCF according to header information of the multicast message; and

transmitting the multicasting/broadcasting message to mobile station through broadcasting channel, wherein the multicast packet data comprises a header information including QoS, multicast/broadcast type, multicast/broadcast group and length information including body data of the PPP frame format and message body.